

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the above-identified application.

Listing of Claims:

1. (Previously Presented) A reconfigurable computer system comprising:

at least one programmable logic resource that is at least partially configured as a central processing unit;

programmable logic coupled to the central processing unit, wherein the programmable logic is reconfigurable to optimize the ability of the computer system to handle a given application; and

a secondary storage device that stores configuration data for the programmable logic, wherein the secondary storage device is a mass storage device.
2. (Original) The reconfigurable computer system defined in claim 1 further comprising non-volatile memory coupled to the programmable logic, wherein the non-volatile memory stores initial configuration data that is used by the programmable logic during a boot phase.

3. (Original) The reconfigurable computer system defined in claim 1 further comprising random-access memory coupled to the programmable logic, wherein the random access memory stores data and state information.

4. (Original) The reconfigurable computer system defined in claim 1 further comprising input-output circuitry implemented in programmable logic, wherein the input-output circuitry is coupled to the central processing unit and the programmable logic.

5-14. (Cancelled)

15. (Currently Amended) A method for managing resources in a reconfigurable computer that contains programmable logic resources that are reconfigurable to optimize the ability of the computer to handle a given application comprising:

automatically swapping configuration data between a secondary storage device and the programmable logic resources during programmable logic resource allocation using a virtual logic manager, wherein the secondary storage device is a mass storage device.

16. (Original) The method defined in claim 15 wherein the reconfigurable computer includes a central processing unit implemented on at least one programmable logic device and programmable logic coupled to the central processing unit, wherein the programmable logic is reconfigurable to optimize the ability of the computer system to handle a given application.

17. (Original) The method defined in claim 15 wherein the reconfigurable computer includes a central processing unit implemented on a microprocessor and programmable logic coupled to the central processing unit, wherein the programmable logic is reconfigurable to optimize the ability of the computer system to handle a given application.

18. (Original) The method defined in claim 15 wherein the reconfigurable computer includes a central processing unit that is partially implemented on a microprocessor and that is partially implemented on a programmable logic device and programmable logic coupled to the central processing unit, wherein the programmable logic is

reconfigurable to optimize the ability of the computer system to handle a given application.

19-27. (Cancelled)

28. (Previously Presented) A method for managing resources in a computer that contains programmable logic resources that are reconfigurable to optimize the ability of the computer to handle a given application having multiple functions comprising:

during run-time, using a virtual computer operating system to autonomously determine whether to use a hardware implementation or a software implementation for a given one of the multiple functions of the given application.

29. (Previously Presented) The method of claim 28 wherein using the virtual computer operating system comprises:

using the virtual computer operating system to determine whether there are sufficient programmable logic resources available to be reconfigured to perform the given function of the application;

using the virtual computer operating system to measure the performance of the application at run-time and to compare the measured performance to specified performance

requirements;

using the virtual computer operating system to allocate the programmable logic resources among the multiple functions of the application based on the comparison of the measured performance to the specified performance requirements; and

using the virtual computer operating system to determine whether the hardware implementation or the software implementation is to be used for the given function based on the comparison of the measured performance to the specified performance requirements.

30. (Previously Presented) The method of claim 29 further comprising time-multiplexing the programmable logic resources among the multiple functions of the given application.

31. (Previously Presented) The method of claim 30 wherein time-multiplexing comprises loading a subset of functions of the multiple functions of the given application on the programmable logic resources for a predetermined time interval.

32. (Previously Presented) The method of claim 29 further comprising loading a function of the given application

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into at least one of the programmable logic resources prior to the function being required by the programmable logic resource when the programmable logic resource is idle.

33. (Previously Presented) The method of claim 29 further comprising defragmenting the programmable logic resources.